

# SPECIFICATION

## TITLE OF INVENTION

### Patient Levitation Apparatus For Patient Transfer Or Linen Changing

Sub B-1

A medical patient levitation apparatus is disclosed, which permits hospital attendants to move patients from a hospital bed to a gurney or examination table on a "cushion of air", with only the slightest physical exertion, without causing discomfort to the patient and without subjecting attendants to lower back injuries from lifting patients from beds to gurneys and which also permits the changing of bed linens while the patient is levitated above the bed itself, on a "cushion of air".

The apparatus consists of a substantially rigid 70 to 72 inch by 20 to 22 inch plastic board on which a patient is placed by asking the patient to roll onto their side while the board is placed beneath them and which they then roll back onto.

Attached to the underside of the rigid plastic board is either a vinyl fabric or a thin sheet of rigid plastic which contain numerous small vent holes, which allow an applied pressurized air supply to escape from the half inch to three quarter inch plenum area between the plastic board and fabric or rigid plastic sheet, in a uniform and controlled pattern, which causes the board and up to a four hundred (400) pound patient to be levitated on a cushion of air that exists between the levitated patient and the bed/gurney/examination table.

The pressurized air is supplied by a small blower motor that is connected to the plastic board via a plastic hose to a 1 to 2 inch in diameter plastic inlet port at the foot of the plastic board. When the blower is activated, the pressurized air enters the plenum and slowly escapes from the numerous holes in the vinyl or thin rigid plastic containing the air escape holes, causing the entire apparatus and patient to be levitated off the bed or other solid surface. A flexible piece of material can be added to the edges of the plastic board to form a "skirt" to create additional lift in circumstances that may require additional space between the board/patient and the bed or examination surface

Once the apparatus and patient are levitated, a single attendant who controls the small pressurized air supply unit is then able to glide the foot of the apparatus from the bed to the gurney and to then glide the head of the apparatus to complete the transfer of the patient.

SA  
BI

To change bed linens, either in a hospital or invalid home care setting, the patient is placed on the apparatus and the air supply is applied causing the board and patient to be levitated in place over the bed. The home care or hospital attendant is then able to remove the soiled linen off of the bed and to place clean linen back on the bed by sliding the linen through the cushion of air that is supporting the patient without disrupting the levitation of the board and patient. [Here or hereinafter when a hospital is used it is intended to include rehabilitation centers, nursing home, old age home and similar facilities.]

CROSS REFERENCE TO RELATED APPLICATIONS:

Not applicable

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT:

Not Applicable

REFERENCE TO A MICROFICHE APPENDIX:

Not applicable

BACKGROUND OF THE INVENTION:

Hospitalized pre and post operative patients are generally subjected to great pain and discomfort when they are required to be moved from their bed to a gurney and from a gurney to an X-ray, Cat Scan, MIR, etc. examination table. Currently they are dragged, lifted, or shoved from one device to the other, in most cases by three, four or more attendants, attendants who suffer lower back pain injuries from doing the lifting and transfer of patients.

The disclosed apparatus will dramatically reduce, if not eliminate all patient discomfort when required to be moved to such examination tables and will serve to prevent lower back injuries to hospital or home attendants.

No similar or comparable patient transfer systems are known to be in current use by hospitals visited by this inventor.

The disclosed apparatus will also permit caretakers of bed ridden rehabilitation patients and other bed ridden invalids to have linen changed by a single caretaker without being subjected to discomfort, eliminating the need for visiting nurses or caretakers to assist in this procedure.

Sub  
B1

**BRIEF SUMMARY OF THE INVENTION:**

The use of the disclosed apparatus by hospitals and home care givers will permit attendants to lift and move patients on a comfortable cushion of air, thereby eliminating the current extreme discomfort that patients experience when required to be moved to examination tables.

The disclosed apparatus will virtually eliminate hospital attendants having to be placed on medical leave because of lower back injuries they currently sustain when they are required to lift and shift patients from beds to gurneys.

The disclosed apparatus is lightweight and simple to use, so that any hospital employee can be trained and certified in its use.

The disclosed apparatus will gently float patients off the surface of the bed on a cushion of air, in comfort, while a home caregiver or hospital attendant removes and replaces soiled bed linens.

**BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS:**

No Drawings Provided.

**DETAILED DESCRIPTION OF THE INVENTION:**

The disclosed apparatus consists of a 72" x 22" (or other similar demension) three-eighths or quarter inch plastic board that is approved for hospital use. A 1" to 2" plastic intake port hole is drilled into the foot of the board and a 1" to 2" plastic port sleeve to accept a hose, is glued and screwed onto the plastic board to permit the attachment of the hose from the blower motor to be attached to the apparatus.

On the underside of the above descibed board, a half inch square plastic or rubberized piece is glued to the undersides perimeter. If vinyl fabric is employed, the fabric is stretched across the entire bottom and a six (6) inch flap is folded onto the top side of the board where all edges of the flaps are glued to the top edges of the board, creating a half inch plenum where the pressurized air is applied and permitted to escape from numerous vent holes in the fabric.

Sub B1

If the rigid plastic is employed in place of the vinyl fabric, additional half inch square plastic or rubberized pieces are placed across the 20-22" span of the board at intervals for support and which will permit the constant flow of the pressurized air supply. The braces would be glued to the primary apparatus board and to the thin rigid plastic containing the air release holes.

The vinyl fabric or the rigid plastic contain fine, needle holes at every half inch per line and where each following line is spaced a quarter inch apart and where each alternating line is offset a quarter inch. Other hole spacing patterns can/will also be employed.

The pressurized air is supplied by a half horsepower (other sizes can also be used) blower motor, which will be a sealed unit approved for hospital room use. A six foot 1 to 2" diameter plastic hose is employed to connect the blower motor to the disclosed apparatus.

702050 507300